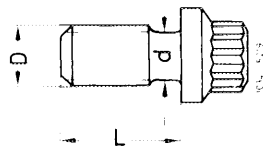


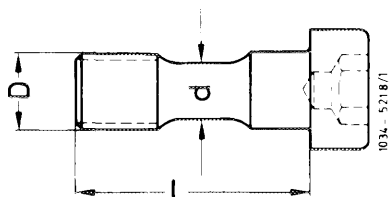
## 03-410 Removal and installation of flywheel and driven plate

### Waisted bolts

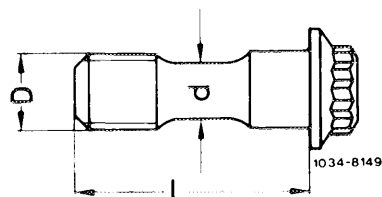
for manual transmission



for automatic transmission,  
1st version



for automatic transmission,  
2nd version



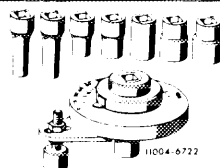
Part No.	615 032 05 71	108 990 03 19
Thread dia. D	M 10 x 1	
Waisted shank dia. d	as new	8.5-0.2
	min. dia.	8.1
Length L	20	31

### Tightening torques

Initial torque	30-40 Nm (3-4 kpm)
Final torquing angle	90-100°

### Special tools

Torquing angle set



116 589 01 13 00

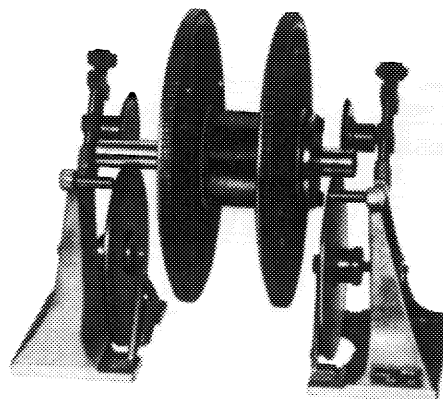
Supporting lock



110 589 00 40 00

### Note

Any new flywheel that is fitted will have to be adjusted to the balance of the old one (03-440).

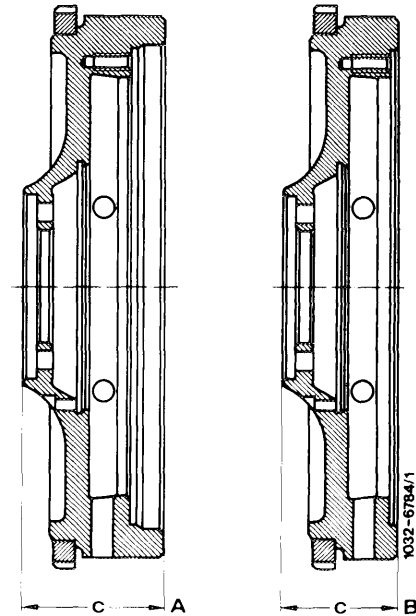


103-10648

The flywheel for manual transmissions with engine 617 is heavier than that for engines 615 and 616.

The flywheels can be identified by different widths (dimension "c").

- A Flywheel for engine 617  
c = 90.0 mm
- B Flywheel for engines 615, 616  
c = 74.0 mm

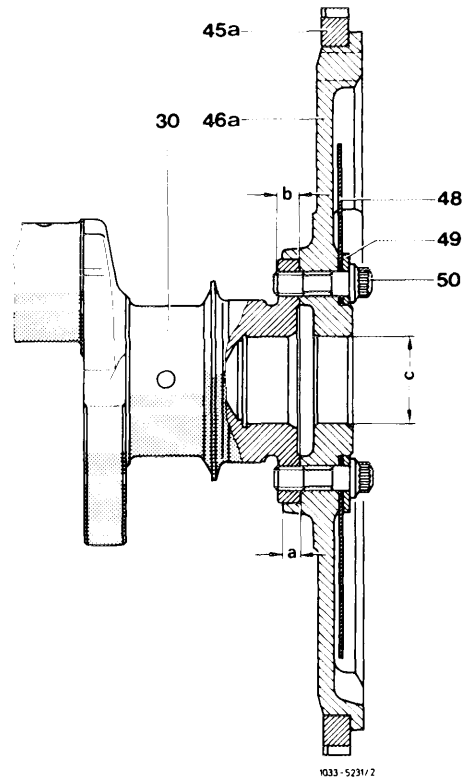


Be sure not to use wrong flywheel with wrong engine.

The flywheel for automatic transmissions is the same for all engines.

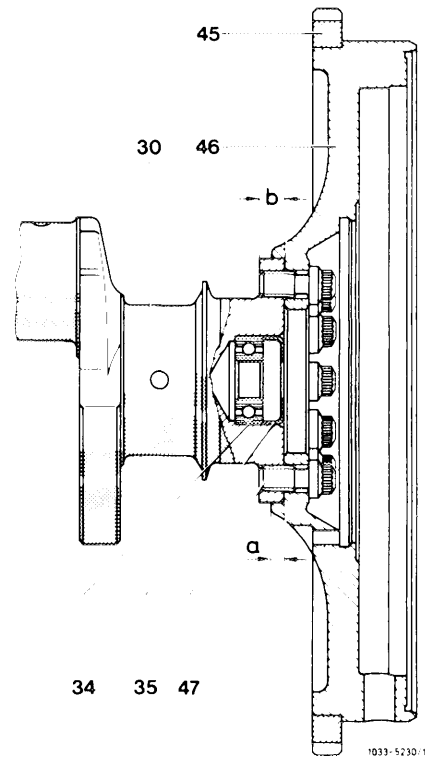
This flywheel must not be crossed with the flywheel for engine 110.

- Engines 615, 616, 617: dimension a = 7.0 mm
- Engine 110: dimension a = 4.5 mm



Layout of flywheel and driven plate for automatic transmission:

- |                 |                          |
|-----------------|--------------------------|
| 30 Crankshaft   | a 7 mm                   |
| 45a Ring gear   | b 10 mm                  |
| 46a Flywheel    | c 50 mm dia.             |
| 48 Driven plate | (transmission K 4 C 025) |
| 49 Shim         | c 35 mm dia.             |
| 50 Waisted bolt | (transmission W 4 B 025) |

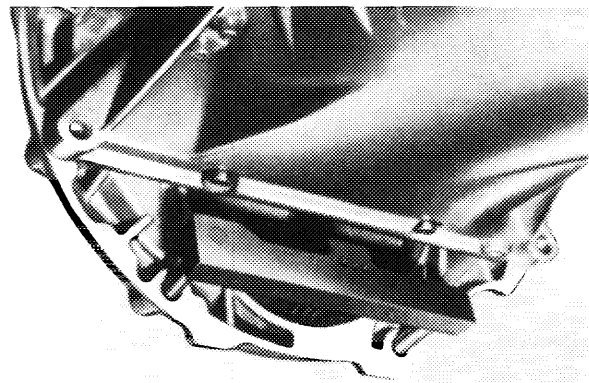


**Flywheel layout for manual transmission**

30 Crankshaft	46 Flywheel
34 Ball bearing	47 Waisted bolt
35 Locking ring	a 6.5 mm
45 Ring gear	b 10 mm

**Removal**

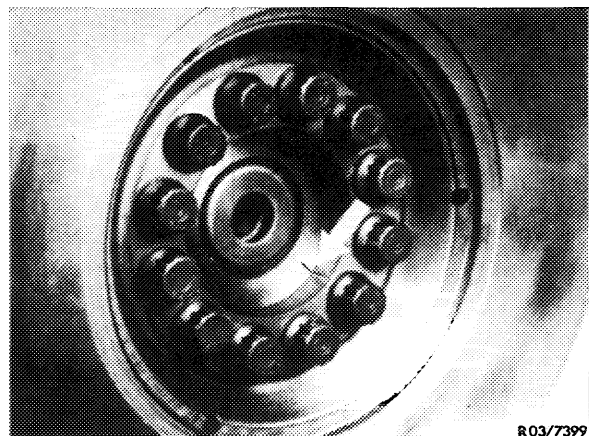
- 1 Remove transmission.
- 2 Position supporting lock on flywheel.



103-9243

- 3 Release waisted bolts, removing flywheel, driven plate and shim.

**Note:** Position of flywheel to crankshaft is indicated by a mark (arrow).



R03/7399

Flywheel, manual transmission

## Installation

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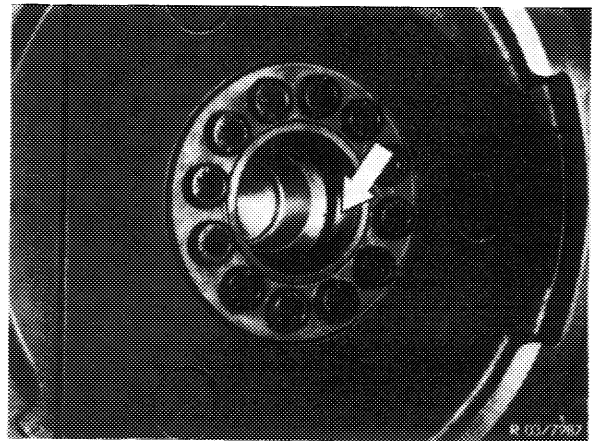
4 Measure shank diameter of waisted bolts.

Use new waisted bolts when min. dia. is reached.

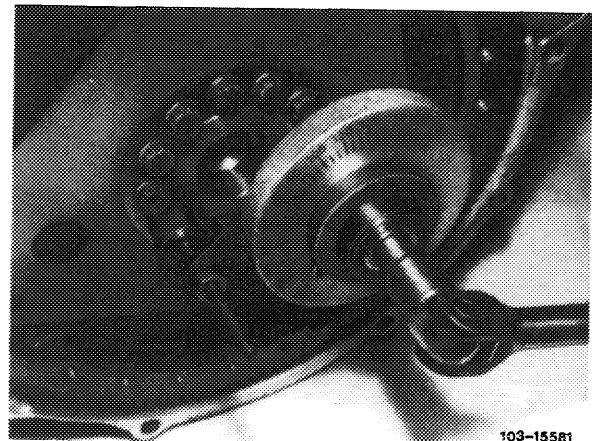
5 Position flywheel, driven plate and shim on crankshaft journal so that marks agree.

6 Insert waisted bolts and torque to 30–40 Nm (3–4 kpm).

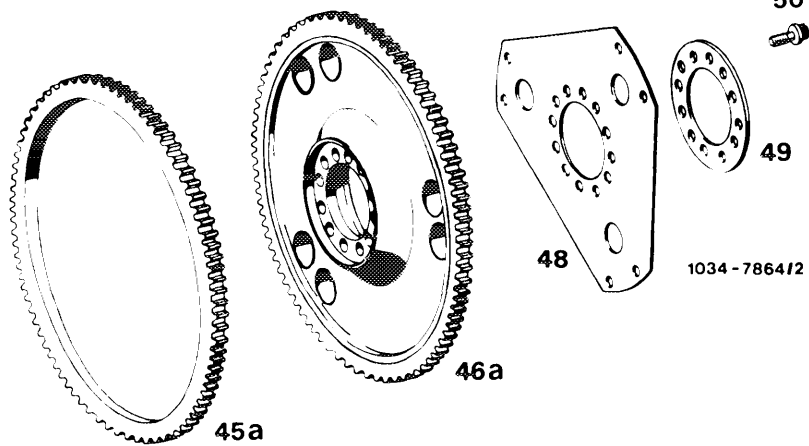
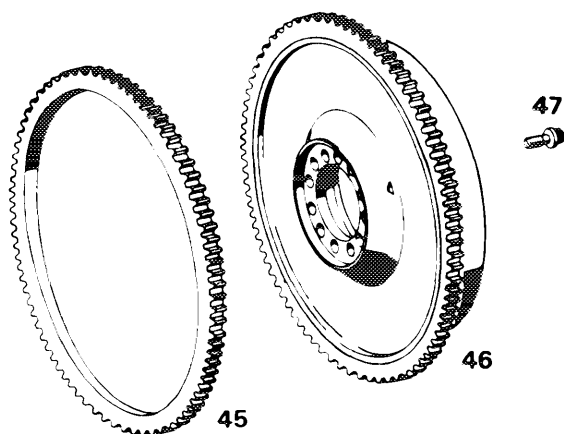
Flywheel, automatic transmission



7 Using torquing angle set, apply final torquing angle of 90–100°.



# Flywheel and driven plate



- 45 Ring gear, manual transmission
- 45a Ring gear, automatic transmission
- 46 Flywheel, manual transmission
- 46a Flywheel, automatic transmission
- 47 12 waisted bolts
- 48 Driven plate, automatic transmission
- 49 Shim, automatic transmission
- 50 12 waisted bolts